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California Mining Journal,
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TERMS:

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☞ A limited number of advertisements will be received on reasonable terms.

☞ All letters on business matters should be addressed to "W. F. Eyre, Grass Valley."

AGENTS.

E. Eyre & Hall, is our authorized Agent to transact business for us in San Francisco. Mr. Eyre is also appointed to receive subscriptions and receipt for the same. He may be found at his desk in the first floor of the building, opposite the Pacific Express Office, up Stairs.

Helvetia and Lafayette Gold Mining Company.

We know of no Company in the State more perfect in all its arrangements of machinery and facilities for underground working, than the Helvetia and Lafayette Gold Mining Company, located about one and a half mile below this village on the well known Lode. About $200,000 in capital has been expended in purchase of mines, opening same, erection of machinery, &c. During the past year about $70,000 has been expended in erecting new machinery, in sinking shafts, straightening and repairing adit, and in properly preparing the underground works for a successful and economical working of the mine. These improvements are now complete, and the new mill was put in operation for the first time about a week since. The machinery appears to be perfect in every particular. It contains two large and powerful mine stamps each, driven by an engine of 30 horse power. The stamps weigh about 750 pounds each. The amalgamating apparatus is of the most approved kind, and as after a long course of trial at their old mill has commended itself to the Superintendents. Warm water is used to give increased action to the quicksilver. The pulp, immediately after coming from the stamps, is made to pass over a pool of quicksilver, and thence over a succession of blankets, thence along flat troughs, over several ripples filled with quicksilver to an amalgamating table known as the "Hungarian tub," where it is made to pass *through* a body of quicksilver. All the quicksilver, and the mercury in "tailings" pass out of the mill into a reservoir, where they will be carefully saved for future working.

The mouth of the main shaft is directly in front of the batteries, and it is the intention, as soon as the present surface supply of rock is exhausted, to attach a hoisting apparatus, which is already on ground, to the engine by which the ore from the various drifts can be placed, by steam power, directly before the feeders.

The adit is supplied with water by two pumps working through the main shaft. The water is then raised about eighty feet to a large reservoir, and from thence to a tank, into which it passes by a natural fall, and by which the batteries and engine are supplied with hot water. Any surplus of water from the mine, above that which is needed for working the mill, is conducted to the adit level, whence it is allowed to pass out of the mine.

Another shaft has also been sunk from the blacksmith shop, communicating with the adit directly to the vein underneath, through which, on a signal bell from below, the tools are taken up to be sharpened, which arrangement will be a vast desideratum to the confusion. In fact every department of both the mill and vein is arranged with the strictest regard to order and economy both of time and labor, and the whole establishment is accredited to Messrs Conaway & Delavan, for the perfection with which all their arrangements have been made.

By tunning their mill directly upon the vein, all the extra expense of raising rock and draining the mine by manual labor or by extra steam power is saved, as is also the carriage, which is a very large item of expense with those mills, situated at a distance from the mine. It is estimated by the Superintendents that this saving will amount to about $15,000 annually — a handsome and unconsiderable profit in the management of even a very extensive operation.

The Superintendent informs us that he is able to reduce about twenty tons of rock every 24 hours by the present force. The company has about five hundred tons now upon the surface, and we were particulary struck with its promising and uniform appearance. We noticed upon a piece of rock on Friday weighing about fifteen pounds, which was completely studded with the precious metal. The rock from this vein has ever from its earliest working, presented a remarkably uniform appearance, never falling below a good, paying yield, and oftentimes running up to a very high figure, averaging about $30 to the ton. We are unqualifiedly not a mere reliable vein in the State.

The claim of the Company is 1100 feet in length, with the dip of the vein, thereby enabling them to work to any depth; and it will not be exhausted during the present generation, and will no doubt make the fortunes of hundreds of individuals. The mine is open the whole length, and there will be at least five years work above the level of the pumpshaft. It has taken time and a large amount of money to place this Company in the position in which they now are, requiring in the mean time, the most arduous curtailings. Now the end sought has been accomplished, and the surplus earnings, over paying expenses, will be divided among the stockholders.

We are pleased to chronicle the success of this Company, and most heartily rejoice in the flattering prospects which they have in store for the future. Their success affords another evidence of the productiveness and permanence of the main resource to which we look for the future prosperity of the State.

Table Mountain.

There is perhaps no mining locality in the State about which more has been said and spoken than this Mountain, in Tuolumne county of Calaveras county. In order to give our readers some intelligible idea of the geological structure and general appearance of this remarkable locality, we have taken considerable pains to collect the subjoined facts and theories from the most reliable and intelligent published correspondence which has been published upon the subject.

The mountain is an elevated strip of table land, extending about eighteen miles in a northwest and south-west direction. Its course is serpentine, very much like that of the numerous streams that traverse the country. The top, with now and then some slight obstruction, is nearly flat, gently sloping towards the south-west, presenting a surface from one to two miles wide, and for a full mile. Its height above the surrounding country varies from two to eight hundred feet, which is owing principally to the unequal wear and abrasion of the country and not its own level.

Two theories exist with regard to its formation. One is, that a stream of *lava* flowed down from the mountains which cover it presents the exact resemblance of a vast river; just as it would, had it been disgorged, a molten, fiery flood, from the old burning mountains of Tuolumne, and poured down the channel of some great river, bearing on with its mighty currents, quantities of rocks and pebbles, and sand, mingled in and formed into a mass of fiery liquid, which in cooling down, the whole bed of the river, and all cooled down into a moveless solid mass. Afterwards we must suppose the surrounding country, by the operation of the elements, was washed away by floods and storms, till the once river of lava less yielding in its materials high above the region around, with its present appearance, a table land. Many reports from the great volcano of the Hawaiian Islands, tell us that last summer, the lava there has thus flowed, winding as a river for fifty miles; so doubtless, Table Mountain was formed.

Beneath this mountain, in the deposits of the old river bed, it is the exposition of many a sanguine eager mine, that he shall soon discover untold millions of treasure for gold. But let them remember that the channels of ancient rivers must and will be, like the channels of modern ones in some places exceedingly rich, but in many others exceedingly poor.

In many places, apparently where ravines came down into the ancient river, the flow of the waters spread itself out, forming as it were, arms or bayous. No tunnel has yet reached the river bed, or the centre of the mountain, although many are driving for it; still some have found very rich deposits in the bed rock in the offshoots, or bayous before alluded to.

The rim rock is composed of slate, changing to greenstone—very tough and hard to work. Our company have employed three men night and day driving 110 feet. The first tunnel was commenced by them in May, '55. They found, after running through the rim rock, that it was too high up and commenced another lower down, which they have carried in 1000 feet for the purpose of drainage. The cost of these two tunnels thus far is said to be $10,000. Should they succeed in reaching the old channel of the mountain, they have also struck through and have proved too high up. But they have demonstrated that there is a bed of gravel underneath the rim rock on the mountain which pays well, certainly in some places. How will it will pay on the whole, it is yet impossible to tell. Caldwell's Ranch, at the end of the mountain, or rather where it seems to stop, is the place where the richest dirt has been taken out. One writer states that he was there last spring, the day after the rich find was discovered, and lodged in the general wonder. Here is to be seen a pile of dirt, not very large, for which the owner has been offered $60,000, but refused it, as he expected to obtain from it $75,000. There are at this point unmistakable evidences of quite a large river having flowed.

A great many hydraulic companies have started with a view of reaching the old river bed, but, as we have already stated, none have yet reached it. If the theory of the filling up of the river bed be correct, that bed will eventually be reached; and if the deposits which have been struck on the edges of the mountain are feeders, and not merely local ones, gravel deposits of immense value may reasonably be looked for.

If this is not the true theory, and if the mountain is but a *dyke*, thrown up with a long irregular fissure, no deposit will ever be found under the centre of the mountain, and all the labor spent in hunting for gold there will be so much money thrown away. To say the least, all this problem is solved, investments in Table Mountain tunnels must be extremely hazardous. For the sake of those who are laboring on and in the hope of the river theory may prove to be correct one, and that all may be amply rewarded for their labor. We shall note with interest the progress of mining in this vicinity, and shall record it in a monthly report. Any item of information from thence, or to be set right in any error into which we may have been inadvertently led in penning this article.

Silver Mines in Monterey County.—This

said by the Monterey Sentinel, that there are not less than fifty silver mines in that county. Copper and other minerals found on the hills of the Alisal ranch in that county and the mountains of the vicinity. Some of the veins look like the ordinary iron ore, mixed with steel. The mountains on the east side of the Salinas plains, must be a highly metalliferous region, as for the last five years, numerous parties, Spanish and American, have come into Monterey, samples of heavy rock, which are certainly not pure stone—they invariably have resemblance to the silver and lead mines of Mexico and Peru, specimens of which are to be seen in the store of Monterey, and Chinese who have traveled over Monterey county, invariably assert that the Sierras of the district closely resemble the mineral regions of Chili and Peru. Besides the above mentioned indians of the vicinity, the tradition of a very valuable mine of silver ore in the mountains of the Carmelo Valley. An American journal, we observe in the city of Monterey, in 1849, a piece of pure silver, weighing an ounce, which he asserted he had picked up in a dry arroya in the mountains of Pacheco's Pass. When he left home in mind of making his profession as millions of dollars of silver every year, and that these mountain ridges are but continuations of our own Sierras, we can easily believe that there are as good specimens of ores in our State, as there are in Sonora, Chihuahua and Durango at least.

The occupation of silver mining is much more profitable than that of gold mining—It is said in sustain by its production in its various ramifications of trade, several millions of population. California produces forty-six millions of gold a year, and only sustains three hundred thousand inhabitants.

We are confident in the belief that time will develope the silver mines of our State into an interest in the world of mining of importance only to that of the gold placeres. Uncle Sam only needs silver now to make him independent of the world in money matters.

Gold in Washington Territory.

The recent annual message of Governor Mason, of Washington Territory, alludes as follows to the gold discoveries of that Territory:

During the past summer, rumors of discoveries of gold [illegible] Territory, and the arrival of many enterprising and energetic citizens of the Territory to visit that region. Many have returned and reported favorably, and the impossibility of gratifying previous there from the want of provisions, to the extent of the gold bearing district is not known, yet the fact is certain, that those who worked the bars and gravel beds to the extent of Fort Colville, found gold in sufficient quantities to reward the labor of the experienced miners, experienced miners dig, either upon the bars or upon the hill sides, gold was found, and even with the rude mode of washing with pans, an average of ten dollars per day has been made, and those who are still in the mines, report profitable employment. I have no doubt that with improved machines and more perfect modes for working the gold, that the gold mines will prove amply remunerative in many parts of the Territory. Even there, whenever the state of the country will permit communication between the Columbia River and the Sound settlements and the gold bearing region.

Air Engines.—In the improved air engine of Messrs. Napier & Rankine, the heating surface is increased to any required extent by a number of tubes passing through the furnace. The waste of heat by its communication to the air at stopper periods of the stroke, is prevented by a sort of plunger, or combination of screws of the air to the heating surface, except when it is in the act of expanding, and so performing work. The engine may be made of the same size with a steam engine of the same power, or smaller, according to the degree of condensation at which the air is employed.

Gold Washing.

About the close of last spring, one of our citizens and experienced miners brought a quantity of dirt, from an ancient Hill, for the purpose of washing it, and from the sides and ornamented shovelling in the tailings, an ounce of gold was the result of his work. He took out nearly three ounces. About a fortnight or ten days after this, some of the same party, during which he never made less than a dollar per day. He then moved his station down, and by the time he had finished washing, the tailing dirt dollars the first day, after which he moved back to a third course of tailings which was a first day's speck of forty dollars. Experienced miners have produced from one to two ounces per day, and the work is getting out, he made a present of his pile to a miner who was "dead broke," who we doubt not, will still make a good thing out of it, as soon as the ditches are filled.—[Nevada Journal.

The Alta California, in copying the above, comments as follows:

Most of Gold in Washington.—Ever since the pioneers of California were first worked, the miners have been aware of the fact that in all the gravel deposits of washing auriferous earth, a large portion of the gold, consisting of very fine particles, is so small as to be almost as fine as flour, an impalpable powder, and all of that which was contained in the dirt which was washed in the above wood dust-like test, even after the continued washing. The above which is from a very able New York Journal, gives a striking illustration of that stated. Who will discover a plan by which to save this fine gold?

The above extract, from the Nevada Journal, has evidently misled the editors of the Alta, who are not supposed to be acquainted with the practical details of mining; and who, therefore, know very little of the value of fine gold, that is not practically acquainted with mining.

We have no doubt of the truth of the statements made by miners, as referred from this Territorial instance, that all sluicing operations are stranded, or liable to be attended, with like results. The bulk of tailings above alluded to, which were washed from a single source which contained a large amount of what the miners call "cement"—that is gravel, which by the process of iron or some other substance, has become hard, and which has become so firmly united that a great portion of it is able to resist the immediate action of water, and is thus carried completely through the sluice boxes, and deposited in a gravel bed containing of course more or less gold. Another likely occurrence to the miner is the presence of flour, which never could be saved, if quicksilver was not introduced into the sluice boxes, passes on through them, with very little wasting, and in its passage frequently attaches to itself quite a quantity of gold which comes out a fine dust into the tailings. These "lumps" of cement or clay after a short exposure to the atmosphere become "slacked," fall to pieces, and the gold passes through the second time, with perhaps a greater daily yield than at the first time washing; and so on two, three or four times, according to the quantity of gold which the dirt contains, or last become thoroughly slacked—after which, no known operation can be made commensurative. Of course, diggings which contain no gold, or only a trifling amount, the presence of this gold by the *first* process, provided it is through. Tailings which accumulate immediately at the mouth of a sluice, which has been worked with great success, and is richly rewarded will generally pay for a second washing, and are usually reserved for this purpose. A little gold will unavoidably escape from the best managed sluice boxes, and therefore the sluice is mostly deposited very soon after leaving the sluice, while the lighter particles of earth and rock pass rapidly away to a distance.

Of course everything else, requires experience. A green-horn should not expect to set up at once for a miner; if he does he must expect to lose a large share of the gold which comes in his way, and there are many considerations to be taken into account; and first of all, the miner should know something about the ground he is to work. Before the rainy season sets in, and thus free from freshets and clay, the boxes should be set quite steep, say from five to six inches fall to a twelve foot box. Such ground will also admit of a very large sluice, and the dirt from the earth may be hurried through without any danger of loss of gold; on the contrary when the ground is very hard and filled with cement, the sluice should be placed at a less angle and less quantity of water used, in order that the earth may be subjected longer to the action of the water, that it may soften and crumble, dissolve, and then liberate the gold, which is then sure to be saved, if proper caution is used. There is very little danger of losing gold in the sluice, if the water is properly "set," if the right quantity of water "sets on," and a sufficient length of sluice added.

The method of saving gold in placer mining reached, years ago, is as great degree of perfection as it will probably ever be carried. We are not aware that any new methods, of any practical utility, have ever been introduced into this State, unless it is the hydraulic hose and pipe, which are not older than the discovery of the mines of California themselves. We are aware that many are in the way of "patent rifle hores," "false bottom sluices," &c., have been introduced, only to be used awhile, and then thrown aside as so much useless lumber. Nothing perhaps permanently superseded the old fashioned "sluice boxes." Yet this plan of washing for gold was practised before "Rome was," and was probably as well understood in the days of Solomon as at the present time. We are not aware that the ancient miners used wooden boxes, although they might have done so—They certainly constructed ground sluices for as extensive a scale as it has ever been carried on in California.

Scientific Exploration of California.—

The Boston Atlas states that Mr. E. Samuels, an enthusiastic naturalist of that city, left for California in the beginning of January of the 4th inst., on a tour of scientific research. He proposes to make a thorough exploration of Northern California, in all the departments of Natural History, and with that object will remain in that region one or two years, devoting all this time to making collections in its animal, vegetable, and mineral kingdom. The collections will be for the joint enjoyment of the museums of the Smithsonian Institution, in Washington, and of the Boston Society of Natural History, of which last institution Mr. Samuels is a member. Several years, the lamented, with praiseworthy liberality the Panama Steamship Company, engaged to carry the purposes of Mr. Samuels, of the Smithsonian Institute free of charge for himself, including a free passage for himself and all his necessary implements of collection, and letters to their agents to render him all the aid in their power. The enlightened liberality of Wells, Fargo & Co., have also volunteered to unimportant aid, and their agents in all parts of California will also receive letters, requesting them to render him all the assistance in their power to Mr. Samuels.

Sharpening a Drill Rapid.—We translate the following from a German scientific journal, for the benefit of our mechanics and agricultural laborers:

Every one knows that the simplest method of sharpening a razor is to put it for half an hour in water, to which has been added a little vitriol, or sulphuric acid. Vitriol or sulphuric acid, then lightly wipe it off, and after a few hours set as good as a hone. The acid does not eat away the edge of the razor by corroding the whole surface uniformly, so that the edge has a fine, sharp appearance, but unequally. The keenest sharp lines or small points will thus be formed, which are frequently improved by it, although the cause of such improvement remains inexplicable.

We did not know that this could be applied to many other cutting implements. The workmen at the manufactory of the half-moon drill, or when he leaves off in the evening, moistens the blades of his tool with water acidified with vitriol, by which a fine edge is obtained. This saves the consumption of time and labor which otherwise would be necessary to sharpen out the blades. The mode of sharpening here indicated would be found especially advantageous for sickles and scythes.

Mining in Butte County.—The following is the latest account from the Butte Democrat:

Sucker Ry Drum.—We learn that this Ditch is nearly completed, and will soon be in successful operation. The length of this Ditch is seven miles, its width is six miles on the top, and ten at the bottom, with a depth of three feet. It is certain that there is sufficient fall to run the ditch diggings in the vicinity of Oregon Gulch into Oregon Gulch. The cost of the Ditch is $10,000. There is quite a settlement springing up in that vicinity, consisting of eleven log cabins. Immense bodies of diggings in this locality are said to be extensive enough to warrant the erection of water wheels sufficient to furnish the locality most prove an important one.

A Change.—A Mr. Dixon took out a twelve pound lump of gold on Dixon's Ravine, near Kanaka Peak, one day last week.

Mariposa Mining.—The Mariposa correspondent of the San Joaquin Republican says:

The miners are prepared with sluices, tools, &c., and are going to work in the spring, with confident expectations of reaping a rich harvest for their labors. This will be the richest mining districts in the State. Not only the placer and surface diggings abound in the yellow metal, but the country is stored with rich veins of gold bearing quartz, a number of which are being worked successfully. These are four mills in operation in the neighborhood of town. I have visited the one on Hunt's Gulch, belonging to Mr. Hunt of the county, and I must confess that my prejudices against quartz mining gave way to a very considerable extent. After examining large quantities of rock piled up, both at the mill and in the tunnel owned by Capt. Hunt, which I could see gold without my specles, I was thoroughly convinced of the fact. One piece of rock that I examined to day, which would weigh, perhaps, two hundred pounds contained as much gold visible to the naked eye. May success attend the enterprising and gentlemanly proprietor.

Coned by Air Power.—It is not generally known that the gold coin of the world, the gold coins of England are struck by atmospheric pressure, or, in other words, that the air we breathe coins our money. By a beautiful yet complicated arrangement of pneumatic valves, levers, springs, and other mechanical appliances, the air is made to exert its vast weight in rapid alternations upon a serious of steel punches, which operate with great pressure, carry down the dies upon the dies of metal to be coined with unerring precision and force, and thus create money.

The Coal Fields of America.

No provisions of Nature seems to be more wisely regulated than that which has produced the immense coal fields which have been safely stowed away for the use of man, in the exhaustless bosom of the earth. Were it not for these immense and inexhaustible deposits, we might well look with alarm at the probable future condition of mankind, a few centuries hence. The rapid increase of the human race, and the consequently accompanying demands upon the vegetable kingdom for the supply of timber for fuel, look, now, most unfavorably at an early deficit in the supply. An All-wise Providence, however, at the beginning, looked down upon our earth, and saw the race of man was placed upon its surface, by some means which all the philosophy of earth is unable to account for, caused an immense quantity of vegetation, far surpassing anything which has ever since existed. In the economy of Providence this vast accumulation of vegetable remains was not suffered to waste and rot upon the earth's surface, but was buried again in its original depth, but, by that same, unseen, yet All-powerful hand, has been buried at a convenient distance beneath its surface, where it has been safely stored up for the mineral condition, to meet the present wants of man.

In the march of civilization and improvement, a new substance is now demanded to prevent the complete denudation of the earth's surface, for the purposes of art and architecture; and just at this time when, without it, the movements of universal progress would have been suddenly checked, that demand has been met, and stored in these coal fields first discovered in England, and now known to be also diffused throughout the United States. Who does not see in this, the very hand of God, providing for the general economy of the universe, the hand of an overruling Power, which wisely adapts means to the accomplishment of ends?

The whole extent of the Ocean has been in the abundance and universality of the supply. A few centuries ago, and where was the most visionary dreamer that could have anticipated all the wealth that was to be found in a river yet but faintly shadowed forth. Recent geological researches go to prove that the supply of this now indispensible requisite to civilization is universally diffused throughout the globe. Let us look for a moment at the coal fields of our own country. The Ohio coal field is spread out over a territory 704 miles long and 180 wide, covering an area of sixty thousand square miles, a greater surface than that of England and Wales. The Illinois coal fields covers 60,000 square miles, and the Missouri coal fields occupies 25,000 square miles. Besides these, there are numerous anthracite basins in Pennsylvania and Virginia, the farthest being one hundred miles from the margin of the Atlantic Ocean. But in the bituminous coal fields of the Ohio is 2,800 feet deep; four million tons of bituminous coal are raised annually.

Thus it will be seen that their is no fear of the supply giving out, until the economy of Providence in the creation of man has been fully accomplished, though that event may be a period beyond the ken of man.

Again, in the matter of iron, which is the most useful material in the advancement of civilization and the arts, the supply seems to be in the same proportion to the demand. The consumption, in bulk, is far below that of coal, and its diminished presence seems exactly fitted to its relative necessity. But a small per cent of the iron of the earth is available, either in quality or situation, as timber for the various architectural and mechanics purposes. Were we to look for these alone in the home region of civilization, it is ever there they would fail. Iron, now considered *par excellence*, "the great civilizer," here comes in to supply the anticipated deficiency for many generations. Coal will be found next to the chief ingredient out of which the ingenuity and labor of man will form the various structures and handy-works necessary for the accommodation and progress of civilization. Our ships and steamers, magnificent and immense beyond all present conception, will own their firmness and stability to the iron composition of the material. Our bridges will likewise rear their stately and well proportioned forms to the sound of the forge, and the anvil's hammer. We shall ere upon iron chains, which are the backbone, side in iron carriages over iron roads—in short we are entering upon an age of iron, which, unlike its predecessor, is destined to make an impress upon the world, which all succeeding eras can ever efface. Iron, instead of being the test of despots and cynics, is now to become the civilizer, the elevator, the great instrument of human advancement, and place it in its state of highest earthly happiness, where man shall eventually accomplish the great end of his creation, and glorify his Creator in all his works.

A correspondent of the Plantsville American, writing from Mount Rosea, Henderson & Co., of Negro Hill, a celebrated mining locality near Shoerville, washed out in five days four their claim one hundred and eighty ounces of gold.

California Mining Journal.

GRASS VALLEY, Feb. 19, 1856.

W. H. EWER, EDITOR.

"California Mining Journal."

We have to-day the first number of the "California Mining Journal." Unlike many newspaper enterprises which have of late been presented for public favor with pompatic introductions for their seemingly intrinsic appearance, we feel that we can rest with perfect confidence in the hands of the public with the fullest assurance that it will receive a welcome in the newspaper literature of the State, which has long felt the necessity of a reliable Mining Journal. Our only misgivings are that we may not be able at once to throw into the columns that talent, research and industry, which should characterize a paper devoted to so important an interest as that which it proposes to discuss. The present is a time when every enterprise has to struggle against the resistance which has been produced by from gentlemen well versed both in the theory and practice of mining, and we have to be able, to present to the people of California, and to those abroad who feel an interest in the development of its mineral resources, a paper which shall be a true exponent of the mining interests of the State, and one in every way worthy of its support.

California is no longer looked upon as the shining prize of a few wandering adventurers, and a mere nucleus around which to gather a race which has hitherto obtained with regard to all her great industrial interests, have now given place to the most abundant proofs of stability and progress. The spirit of speculation has gold quartz to no influence of any falling off in the yield of the mines, but is due solely to the fact of a decreased demand for everything but the precious metals, the influence of which has been brought to bear on the business-like operations of the country. Yet, notwithstanding the fact that many of the Companies now in operation, were among the first organized, and have continued on, and without credit, struggled on for years and surmounted difficulties which in any other business would have overwhelmed them; have expended large sums in the purchase of their experimental machinery to the foundery, and have replaced it with that which they have found to be the best, and are now putting out of debt; still, notwithstanding all these facts, we believe it would be more difficult now to raise a capital of fifty thousand dollars than it would to raise one of one million. Yet we predict that the day is not distant when we will count ten mills where we now count one.

We have used the design to pronounce quartz mining a business, and we do so. Although there are many mining bubbles; were it, it would be an exception to any other business, since 19 in every 20 fail. But the fact needs only to show that the cause which led to failure years ago, have in a great measure been removed, and that the system of mill and business—men who have passed through the ordeal—are well satisfied that quartz mining will in a few years be the staple business of California.

In proof—some of our Grass Valley men are now putting up a mill with a powerful engine and 24 stamps on the Pennsylvania Company's claim, which will be completed in a small one erected by them last spring, on a "Prospecting Mill." The new mill will cost $30,000, including the foundery—at mill and have a capacity to reduce forty tons of rock twenty-four hours. The ore will cost delivered on the platform from $15,00 to $7,50 per ton. The Company have no doubt but that the ledge is thick, easy to work, and contiguous to the mill, and should it continue to yield as much per ton as it does in the prospectors will be well satisfied.

The famous National lead near Eureka, is now in the hands of some of our Grass Valley men, who have erected thereon a mill to run 24 stamps, and have now about 12 of the stamps capable of crushing seventy tons of ore per week, the rock will cost delivered on the platform $10 per ton. It is said by those who have tested it, that the ledge is thick, easy to work, and contiguous to the mill, and should it continue to yield as much per ton as it does in the prospectors will be well satisfied.

Our hopes, for the present, will be at no future interest in the mines, but as a public concern of interest to the matter, and the "Journal" more widely known, we hope to see a demand for it, which will not only call for a more frequent issue, but also for its very material enlargement and improvement. We prefer beginning on a small scale, and with resources which bid defiance to failure, rather than to launch out at once into an expensive publication, with no chances to one that the capital required will be forthcoming, and hazarded long before the journal has been fairly brought before the public for its confirmation or denial.

We have in California our agricultural paper, our medical paper, our literary papers, and papers devoted to every design and mode of publication—all but one—and why and why should we not have at least one paper devoted to the great interest of mining? We submit the question to the intelligent throughout, both to those who derive for the living dust along our golden rivers, or in our deep mountain placers, as also to those who seek for the precious metals in the bowels of the earth, and their efforts have been crowned with success.

Let us have a paper devoted to promoting the best interests of the mining, and the "Journal" more widely known, we hope to see a demand for it, which will not only call for a more frequent issue, but also for its very material enlargement and improvement. We prefer beginning on a small scale, and with resources which bid defiance to failure, rather than to launch out at once into an expensive publication, with no chances to one that the capital required will be forthcoming, and hazarded long before the journal has been fairly brought before the public for its confirmation or denial.

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Our hopes, for the present, will be at no future interest in the mines, but as a public concern of interest to the matter

The Silver Mines of California.

The fame of the silver mines of California is quite as ancient as the knowledge of its gold placers, and it is the opinion of gentlemen well informed in the matter, that ere many years shall elapse, we shall see the business of silver mining take high rank among the mining interests of the State. So far as discoveries have been made, they are the promise of richness to be chiefly confined to the Central and Southern portions of the State, and there can be little doubt but that where the mountains of the portion of the State as yet unexplored, silver ores will be found as abundant, and perhaps as rich as in the most favored regions of Mexico or Peru.

We are some two or three weeks since, from the "Monterey Sentinel" an article with regard to the silver mines of Monterey county, from which it appears that there are not less than a dozen distinct veins of silver in the ranch in that county, and it is also stated by those who are well acquainted with the silver mining districts of Mexico and Peru, that a remarkable resemblance exists between these regions and the Sierras of Monterey.

Rich placers of both gold and silver, were known to exist in Monterey county more than fifty years ago, and were worked to some extent, though in a very loose and unscientific manner. The priests of those days invariably found the search and working for log for miscreats, as a matter of policy to themselves; hence the loss of the particular knowledge with regard to their location and values. It is, however, certain that the mines were both extensive and valuable. Silver ore in Monterey county was so plenty and so easily obtained that it was frequently used for making bullets—the mineral being a mixture of lead and silver, the silver forming about twelve per cent of the whole. The most reliable evidence also exists with regard to silver mines in the near King's river, near the head of the Tulare valley. Other veins are known to have been worked to some extent in Santa Barbara county. The fact is, that there are no available veins of silver ore in Calaveras and Tuolumne counties.

One of the veins in Monterey county on the Alisal ranch—one of the richest—has been passed the early Californians obtained the material for making their bullets, is said to have been re discovered and worked for a short time by a Mexican, who, however, soon abandoned it on account of a dispute about the proprietorship. From that time it remained undisturbed until 1852, when a party of Germans miners, who had but little experience and less capital, came upon it, and worked it for those two very sufficient reasons soon gave it up again. They wrought it sufficiently however, to prove that it would be valuable, under proper management, and with sufficient capital. Two more veins have since been discovered in the same immediate neighborhood, which present every indication of being extensive and valuable.

From these facts, which appear to be authentic, and the accuracy of which might be thoroughly tested by inquiries and examination, in the neighborhood alluded to, there would seem to be very little doubt of the truth of the assertion put forth in the commencement of this article, that the business of silver mining must become a very important branch of California industry. In order to bring about this result it is desirable that the first operations should be undertaken by experienced managers. A mine of either gold or silver, if properly worked, is extraordinarily productive under an experienced and liberal management, may, under the control of inexperienced managers, although with an abundance of capital, be made to yield even a paying return. It is therefore to be hoped that the first experiments in silver mining in California, will not, as has been too frequently the case, be entirely entrusted to incompetent hands. It is desirable that the attention of enterprising capitalists and practical miners may be turned toward this profitable investment. The business of silver mining has ever been, in all countries, more productive and certain than that of gold. There is at this time a great demand for silver, and also a changing market for the ore; and it will be most fortunate for California if she should find it in her power to supply this deficiency. With gold and quicksilver in abundance, and large and steady supplies of all the grosser minerals, we need now but an equal development of the superlitterous ores to make us, as a nation, independent of the world, requiring which relative to money and commerce.

With this end in view, we shall endeavor to collect and lay before our readers, from time to time, such facts of value as we may obtain with regard to the discovery and the proper methods of working silver mines. We shall close this article, the length of which, nothing but the importance of the subject in the following paper, by Guido Kastel, translated for the San Francisco Chronicle from the "German Journal" of that city:

"Silver mining will become a much more important branch of industry for the future than at present, because it is beyond doubt that the precious metal will be found in greater part of the State, contain many silver mines. However, the discovery and digging of silver ore is more difficult than that of gold. Silver is less widely diffused, and in many of its forms is not easily to be recognized. Gold is easily discovered, on account of its dissemination in gold districts, and of its striking appearance. Silver is found in connection with Tellurium of Molybdenum. The pan soon tells the gold miner when he can expect. A practiced eye can detect the same to him as a quarry vein. When he seeks the ore, he seeks the other. When he finds the

The specific gravity of silver ore when found in a state of nature, pure, in combination with Sulphur is greater than that of most other metals, with chlorine alone with iron, in combination with arsenic and antimony, and seldom with iodine, bromine or quicksilver.

Silver ores are found almost exclusively in veins in gneiss, mica, graywacke, and clay slate, and sometimes in greenstone, trachyte, limestone and the later limestones. The veins are principally of quartz, hornstone, lime and brownspar, with Sulphur and copper.

TELEGRAPHIC FEATS.—The Morse line was occupied each and one quarter hours in transmitting the President's Message from Washington to New York. The House telegraph occupied one hour and forty minutes—a third of the document the like distance. The California State Line Telegraph, although not completed, has worked in the most satisfactory manner, and but little experience and less capital, will make it a paying line for those two very sufficient reasons soon gave it up again. They wrought it sufficiently however, to prove that it would be valuable, under proper management, and with sufficient capital. Two more veins have since been discovered in the same immediate neighborhood, which present every indication of being extensive and valuable.

The December number commences the republication of the great work of Ponson on Gold mining, and the splendid plates of the original. It is the most important work on that subject extant. The plates are very numerous and expensive, and executed in the best style of lithographic art. It is the intension of the publisher, in adding these new features to the magazine, to place it within the reach of all the recent and valuable information relating to the foreign portions, which are of too costly a nature to admit of a republication as a separate enterprise. The price of Ponson's work alone, is $10. Mining Magazine is published monthly at $3 per year, each number containing from a hundred to one hundred and twenty pages octave. It is one of the most valuable publications in the country.

THE LONDON TIMES.—By far the most ably conducted journal in the world is undoubtedly the London Times, and as extensive is its influence upon the nations of the country, that it is literally true to say that it is a "State Estate," of the British Realm. The first estate in the British realm, is the second the "clergy," the third the "Commons," and now a *fourth* is added—"The London Times." It is by far the most widely circulated, and the most influential journal in the world.

SOMEBODY SAYS: "A man discovered America, but a woman equipped the voyage." So everywhere—a man discovers or perseveres, but woman trains the man. Every chivalrous deed proves having its base in the world in but another Columbus, for whose furnishing some fair lady is the fore of his mental and lays down her jewelry, her vanities and her comforts.

☞ The monster steamer of which we have already made mention, is now in process of construction at Millwall, Eng., is to be 684 feet long, and will be 27000 tons burthen Propellers are to transport the ship over a carry 10,000 soldiers! She will visit the United States in the spring season.

The Los Angeles Star says, there is no question that coffee and pine apple plants can be raised, in our mild climate to the great profit and benefit to the pecuniary advantage of the cultivator.

RICH DISCOVERY.—A. L. Johnson & Co., says the El Dorado News, have discovered what appears to be a rich gold quartz lead in Man's Hollow, which paid them forty five dollars to the day's work, one piece weighing seventeen dollars. They claim will last them until next fall, and will pay as high as seven dollars per day.

Quartz Mining.

HUMBUG.—"JOURNAL"—DEAR SIR:—Will you deem it an intrusion to solicit through the medium of your extensively circulated journal a few more desultory hints concerning practical mining from various correspondents and readers, some of whom I doubt not, with much labor exercise, could they but be induced to devote their spare time to such matters, would not only add greatly to the value of your paper, but greatly enhance the present and future value of this State, whose glorious position among men ever was a source of pride to me.

Although the falling off of the precious metals on the quartz veins, as first so extensively plated, still the most unobserving person cannot fail to perceive that success is not to prevalent to-day, and it is apparent that a better and more diffused knowledge of those portions of the country which do not stands a chance of competing with present leading years. It would be an exceeding hard thing even for the most refined critic to prove invalable at present rate of wages, $4 per diem, that chief portion of the quartz veins from which owing to the immense outlay that must be necessarily incurred are no more available to a vast majority than if they never existed; and the new arrival at the mines, unless he has dollars to throw away, is almost forced or indebted to the charity of others. To obviate this difficulty we need public enterprise to be the servitude of capital, whereby the country's future may be permanently and effectually secured. I am, therefore, not a little surprise to see this feature which would ensure pecuniary enchantment to all parties interested, so little alluded to.

I fully more particularly to the development of quartz veins, which I conceive would yet remains undisturbed, positive evidence of which is found scattered over this portion of the American continent, and it is a well known manner that it lucidingly ensures to all those who judiciously seek it, in the form of the real "Aladdin's Lamp." Every educated miner, (I do not mean those who have smattering of mining, and who, after a few fever fest broke out) who has been practical in these matters, and who, whether as a farmer is raised to his calling, knows that there are two kinds of veins, the producing and non-producing, and who has a thorough understanding their constituents and the different kind of metals in which they are imbedded. I have not the slightest doubt but the location of the globe for any considerable length of time, should be found to be as rich in its production of gold, viz: Australia, where the variety of quartz rock in all its phases is the same as that which I allude to, that nature has observed the same laws here as there, and has not made one to be set apart. The little interest taken in such matters here has created in me the impression that the Society's interests in such matters are every where celebrated but, for cause. In their own district they are not exceedingly behind their character. In it, because in foreign companies, will more money than direction to be spent in the State than all others are to fail? We must bear in mind that the time said companies were organized, gold mining was in its infancy and undertood, and to render matters still worse for California, the most unscrupulous of persons in such matters to have condemned their wholesale expenditure and inexperience, but fell into the hands of those who well calculated for developing the more base metals, and who are now reaping the fruits of a portion of such having been the engrossing business of their lives. The affinity that exist in mineralogical science, in the concentrations, as matter of what character, should be a sufficient guarantee to the public for more correct views; and their failures are attributable to a lack of practical skill or to unscrupulous agents, who, in the absence of legitimate mining, but prove as a beacon whereby other capitalists might avoid such follies.

Every man when he sees certain effects produced, naturally looks for the cause, and if the silicial earth is contiguous to a quartz vein let the vein be ever so small, provided it be so, presumptive evidence of which should be adduced if the gold presented a brownish appearance, and the quartz be found to exist if the gold had a globular form, and were found in a water worn state, but still its matrix could be traced if preserved on it. Prospectors of veins give them up at the first disappointment, and find a rich gold immediately, why the very idea is a folly to think of it, and more regularly the metal would soon be at a premium. Capitalists are aware that nothing pays so luxuriously when steadily pursued as quartz veins, and it was only possible to forestall the usual necessities of learning matters by jumping at a thing to-day that will yield a fortune in twenty years to arrive at the present rate of interest, which I conceive to be of importance, consumption which I doubt not most men, could in his peculiar way, is struggling to bring about, and which I trust will be the case. I trust you will not only give the subject a fuller consideration yourself, but solicit your talented correspondents to do the same. Good will appear result from an exchange of ideas, through the medium of your paper.

Respectfully Yours,

A SUBSCRIBER.

Dutch Flat, Placer Co., Feb. 14, 1856.

SAN JUAN, Nevada County, (
Feb. 14, 1856. (

MR. EDITOR:—Our miners are in fine general faces, and the leader a late elongated faces are generally in fine spirits, and the prospect, for the water is come, and we have put the ground in which to use it to advantage.

The Grizzly Ditch is running full, and our Ditch Company, which is ably managed, is decidedly the most popular man among us; the avidity with which he is sought after, in any of our saloons.

The San Juan Ditch brings in its share of the squeeze from the Grizzly Canon, and is now nearly completed in its upper portion, are promised by the time the rains cease, an abundant supply of water for mining purposes. Under this impetus, our town is rapidly growing; new buildings are coming in, and the gently swelling hill-side is dotted over with neat cottages. The merchants express themselves in good trade, and the saloon and our Expressmen are every day exchanging the fat dull dollar for the jingling, bright coin, with Uncle Sam's stamp upon it.

A large and excellent day school is in active operation, and a Methodist Church will erect a commodious house of worship. At present Rev. Mr. Pratt holds forth to a large and attentive congregation in William's Hall.

The Masons and Odd Fellows have taken the preliminary steps towards organizing Lodges here, and I believe that one will be just erected by Mr. Freeman, corner Main and Green Streets.

And to crown all, our Gospel, Mr. Editor, while summing up the leading features of our town, to notice the new "Sierra Nevada Hotel," lately fitted up by Messrs. Green & Sears. Here the weary traveller may rest "rare and fund." and Messrs Sears, ably assisted Messrs. Green & Dickon, will make the stranger feel "at home." In a word, Mr. Editor, we have all the elements of a prosperous and growing town; the site is a pretty one, and what is more one vital, we leave inexhaustible diggings and plenty of water.

If it is your pleasure, I will collect some reliable mining items in the vicinity, and forward in a few days.

YOURS, &c., D.

To Our Readers.

This copy, and perhaps subsequent numbers of the "California Mining Journal" will be sent to quite a number of persons in both California and the Eastern States who are not subscribers. It is this sent mostly to those persons who in the thought may feel an interest in the publication of the Journal, and desire to become subscribers. No person is considered a subscriber until his name is forwarded to the publication office by mail or otherwise. We find ourselves, and we will give ourselves, for one or two numbers, may find sufficient interest in such a publication to warrant the amount of subscription, $1.50 for twelve numbers. One dollar, will pay for eight numbers.

To any person who may interest himself as much as to acquire the names of five subscribers we will send a copy gratuitously, and in like proportion for any greater number.

☞ All letters, pertaining either to pecuniary matters or containing communications for publication, should be addressed to the Editor, at Grass Valley, Nevada County, California.

GOLD IN THE COAST RANGE.—Quite a little excitement was created in San Francisco last week by the discovery of a gold placer on the opposite side of the Bay, on the Corte Madera Creek. It was first found by some parties digging a well. The gold is quite coarse, evidently derived from the debris of a quartz vein in the immediate vicinity. Several small pieces of quartz containing gold have been found. Several hundred claims have been staked off, and many have left for the spot, which have as yet been touched with the pick and shovel, thereby reducing to start, by and watch the result. We wish them a good deal of success. In nearly every case where the mines have proved prosperous have been obtained, as a company of miners have gone to a ground to bring in water from the mountains. Scarcity of water, and the want of it will give plenty of water for a thorough test of the ground. Should it ultimately prove that no rich deposits of gold can be found to be obtained, with plenty of fall within the distance of water, we have already gone to work with their rockers.

THE SOUTHERN MINES.—The Gazette says that the principal portion of the claims in the southern mines are held by those who are present paying enormously well, to its "practical knowledge." On the Chemalla the miners are making extensive "strikes." The Mariposa Company is said to have struck the richest mass ever found in the mines. The engaged in mining operations, continues to be quite successful. Many companies are located on the streams supplying the various ditches and flumes—whereby an abundance of water is now obtained for mining purposes. Ditch owners are reaping a rich return for their investments, and are also engaged in many valuable improvements, and the miners are realizing a precious reward for the toilsome labor of months.

THE FIRST BALE OCEAN OF GOLD.—A correspondent of the Christian Advocate, writing from Oregon, says:

"Captain Charles Bennett has intimate friend in Portland, and he has also a partner in Port Walla Walla. He was among the first discoverers of gold in Oregon. He was at work boring with Mr. Marshall at Sutter's Mill at that time. I have no doubt he has the first bale of gold dust that will be sent from the State of California. He frequently informed me that he had a bale of gold dust, and that he was at enterprising, faithful citizen. I put this circumstance in, as it may not be unknown to many of your readers that the first bale of gold (as that is the poetic amount) is. I believe, now in the hands of the Gold Captain's widow, living at Salem."

THE SACRAMENTO VALLEY RAIL ROAD is now fairly under way from Sacramento to Folsom, a distance of about 22 miles, which will probably be the upper terminus of the road for some time to come. The work is now receiving a fair business, which of course will be greatly increased as soon as the steam road reaches Folsom. The extent of the trade which they soon will ever generally do. The specie of the Sacramento and San Joaquin Valleys is California enterprise, which will result in the covering of the entire State with steamboat and railroad lines. The Sacramento Valley presents a more inviting field for such lines than any other in the State. The first road is now in the full tide of successful operation, and the products of numerous miles of products, in various other parts of the State. The chief of these is the great trade which is now springing up there from Benicia to Marysville, which latter city will soon be the head of the navigation of the farmers from Sacramento to Marysville. Both these roads are based upon the productions of agriculture, and the early adoption of navigation on the Sacramento and Feather rivers, and the opening of the immense amount of sediment washed down those rivers from the mountains.

TOMESCO SEED.—We have received from Messrs. Grosse & Co., a package of the genuine Virginia Tobacco Seed. This seed is distributed gratuitously throughout the State, with the view of testing the capacity of the various portions of the State for producing Tobacco. The few experiments which have hitherto been made leave little room to doubt that tobacco can be raised in California equal to the finest Havana. We have a few papers left which we will hand to any person who may be desirous of trying the quality of their soil for the production of the weed. We shall be glad to receive from the results of all such experiments as that we may place the same before our readers.

The American Militia.

"As to our people who refer to new military operations in a war with the United States, that is a farce. We have now some fifty thousand men in the Crimea, which constitutes the larger portion of the rank and file of the British army. The Russians are on the contrary, possess the finest organized militia in the world. Their richness are fortified by a body of men, which is equal to about a month of desertion of hostilities, the Americans could, and would, muster an army of some five hundred thousand men on the British frontiers. And although hastily organized, they would be found to be good recruits, as ours last well trained soldiers, for each man in the seventeenth year of his age, reside has handled the rifle with unerring aim; knowledge, winter and summer, in the fields and forests, and consequently the Americans' last inured to danger and hardship would be called the long effects in the war. Our earliest boyhood; their own professional and engineers at home in every position—whether in the saddle or on foot—in the camp or in the tent or mess-house—in fact or in barracks—in short, they have got the right stuff in them for turmoil, fasting, stir, up to every work; such and every one of whom considers himself to be fortified to command a company. Our men would form the rank and file of an army of the Americans would form officers and leaders; and such would be. The Americans are peculiarly a military nation. They are the most peculiarly constituted people in which we are previously described. There are in the United States more military schools than in any of intercourse with the most brilliant genius. They are fully up to their rank as officers, and the men are fully up to their duty, well disciplined from their fathers who served in the war of 1776, and were well united with us in 1814. As to martial enthusiasm, there is no lacked to it. We are bold and daring people, and to the highest degree of patriotism. The fathers of that people is not a great military nation, which will be found to be a great military nation, which will be found to be a great military nation, which will be found to be

Remarkable Geological Formation.—Corner Mining Enterprise.—The geological formation of that portion of Spanish Hill which has contributed most to its celebrity, as one of the richest gold deposits ever found in our State, is one of the most singular and interesting we have ever seen. It consists of a very deep basin, the rim rock protruding out of the ground on nearly every side, so that although on sand and hill it is found to be at the top of the hill, not six feet distant a shaft might be and has sunk over one hundred feet. In the bottom of this basin are three crevices, the middle one of which, running longitudinally through the Golden Gate claim, is most singularly formed, presenting on the upper crust a vein of quartz, from two to ten feet wide—about fifteen feet—and dipping immediately into a crevice of soft material, filled with quartz rock, it is filled with gravel and massive, round, hard and smooth quartz boulders, as well as bed rock. About fifteen from the top of the ledges for the west side the shaft was sunk (adjoining it) but did not encounter a little over were nothing to encounter but hard gravel and boulders, and since at the east side of and running parallel to this, being partly on the Golden Gate and partly on the Mountain Lead claim, a shaft on an average a little over one hundred and ten feet deep, consisting of quartz, gravel, etc. taken out of one day's washing, was most bountiful in gold. Some of the richest pockets of work ever done in this or perhaps in any other country, is now in preparation in the Block and Tackle claim. Two shafts have been engaged for about four months, one of which is down to the bed rock, from a very low point, so as to strike the bottom of the basin, and a recent survey, it is ascertained that the shaft is but a few more feet to run. As soon as the bank drifting is completed, which will be a skillful and enterprising proprietor intend to bring the dirt immediately by rail to the mouth of their tunnel at a height somewhat over two hundred feet, where it will be received by a large sluice, and washed in the proper manner—in which their shaft and tunnel will be completed, and the dirt will be literally tear out the very bowels of the hill, so that nothing but a shell will remain, and, doubtless, the bed of the hill will be left with a tremendous crash. Spanish Hill is singularly rich wherever opened in any manner.

The Governor, in his late annual message embodies much valuable information on the subject of mining.

He shows that, while there is no diminution in the product of gold, there is much less of it in circulation than there should be, merely, a result brought about by the extension of our agricultural and domestic industry. The facilities for mining have been much increased within the past year. There are now 302 mining canals and ditches measuring, in the aggregate, 4,303 miles, and valued at $1,317,700.

Total length of mining canals in the State 4563—cost $6,371,700.

The foregoing description of property within the past year has been within a fraction of 900 per cent!

In addition to the above, 112 canals are now in progress, and will be completed within the present year. In addition to these 112 unfinished canals, Nevada county will compare well with other counties in the State favorably than she does in her completed works.

Quartz Mining.

According to the message, there are fifty Quartz mills now in active operation in the State, which during the past year have crushed 127,400 tons, with an aggregate yield of $4,682,100.

The following are the statistics of the four principal counties:

Nevada—Number of mills 17; amount crushed 74,000 tons; aggregate yield $2,960,000.

Amador—Number of mills 13; amount crushed 45,000 tons; aggregate yield $900,000.

El Dorado—7 mills; 15,000 tons crushed; aggregate yield $390,000.

Mariposa—8 mills; 12,000 tons crushed; aggregate yield $232,000.

Several counties have made no report of their quartz operations, and four of those reported are incomplete. 15 additional mills are now in process of erection, and will soon be in operation.

Considering the youth of the State, and the remoteness of its gold discoveries, the above exhibit is certainly a very remarkable one and speaks well for the mining enterprise and future prosperity of the State.

Leviathan Nugget.—The Sierra Citizen says that a boulder of gold-bearing quartz, 15 feet long, 10 feet wide and 8 feet thick, has been found in a branch of the Cedar Tunnel, near Forest. Leaving out of the rock is supposed to weigh 50 tons, and contains a vast amount of gold in coarse grains. Part of it has been blasted to pieces and some two hundred pounds sacked up, a piece of which fell in the road. The rock is of a very friable character, but of course the whole rock is not worth much. Two tons of it were crushed and yielded 13 pounds of gold.—About 100 pounds have been broken to pieces. In all of which it is said that $4,000 worth of the poorer part yielded $4 50. The company has had a shaft sunk on the ledge, passing through solid hard rock, sometimes progressing at the rate of but a few inches per day, height and day—at late they found pay dirt, yielding about $1 25 to the bushel work. This leading vein is traced for miles into the mountains. The fragments shown us were two-thirds gold.

Mining in Placer County.—The Iowa Hill News says that during the past week a well known company commenced in earnest, three being an abundance of water. Among the claims considered rich and in which good prospects have been obtained, are the following: the Big Dave, Dave Avery, Pacific, Sacramento, West Point, Osborne, Queen City, Pioneer, Baltimore and others. In fact every claim prospected on this Hill has proved good. The Grizzly Flat diggings are reported rich.

Gold in the Arts.—Some idea may be formed of the great demand for gold in the useful and ornamental arts, from the fact that in Birmingham, alone, in England, not less than one thousand ounces of fine gold are used weekly, equivalent to some $900,000 annually; and that a single ounce of gold leaf in eight manufacturing towns is equal to five hundred and eighty-four ounces weekly.

The California Gold Discovery.

Considerable controversy has arisen of late as to who was the discoverer of gold in California. The Empire County Argus of last week, publishes an interesting account of the discovery at Sutter's Mill, in 1848, by Marshall, from which we make the following extracts:

"Had James W. Marshall picked up the first piece of gold is beyond a doubt. Peter L. Wimmer, who resides at this place, states distinctly that Marshall showed him the first gold in this presence; they both saw it and both picked up pieces. Who was the first to find it? Marshall being a step ahead, picked up the first piece, but Wimmer had the first possession of Mrs. Wimmer, and weighs nine penny nuggets and eleven grains. The piece was given to Mrs. Wimmer as a keepsake for one dollar credited on day.

"The first saw-mill early in January, the frame for the mill also erected, and the three and half-foot completed. It was at this time that Mr. Marshall first exhibited the piles of raising the gate during the night to wash out the sand. On the next morning, during a during the day when work would be continued with showers, &c.

"During February the exact day is not remembered, in the morning, after shutting the gate and allowing the water to run down stream, the two together to see what the water had washed out during the night. Marshall, at once about twenty yards below the mill, they both saw the piece of gold before mentioned. Mr. Marshall picked up the piece and, in addition, the gold was taken to the cabin of Wimmer, and Mrs. Wimmer, who had in his absence, water; but the being engaged in making soap pitched the piece into the soap before she knew it it was melted in the kettle. The following morning the strange piece of stuff was boiled over in the soap and was found for the boiling it had had. Discussion now commenced, as to what it was, some saying that the yellow substance might perhaps be gold. Little was said on the subject, but every one had been eager to search for the value of all ever found.

"Shortly after Capt. Sutter came to Coloma when he and Marshall assembled the Indians and had bought from them a few ounces of gold, about Coloma, in exchange for a lot of beads and a few cotton handkerchiefs. They, on the day following, set off for the purpose of one third of all the gold upon their demand, and after a short absence returned to Coloma when a mining party from Oregon declined paying "tithes," as they called it.

"During the month of April Marshall and Wimmer went down the river to Mormon Island, and there found gold in the bed of the river. Some weeks later they sent a Mr. Henderson, and Capt. Sutter to the Mormon Island, down there to dig, telling them that that place was better than Coloma. These were the first discoveries of gold there. Capt. Sutter Brannan soon found out that gold digging was paying pretty well, and that he, as head of the Mormon church, he required "tithes" to the tune of one-third of the gold taken out, which Capt. Sutter refused to pay, and Brannan and Marshall at this place.

"Mr. Marshall and Peter L. Wimmer visited the Middle Fork of the American River, at a point just above Spanish Bar, and dug in the bed of the river, and found gold there. With a bullet ladle and tin pan for tools, he and Wimmer got from two to three dollars each per day. Marshall also went further westerly in hills were not quite so high. Returning home he found Capt. Sutter's people, Bennet and at Kelsey, and therupon concluded that gold was scattered all over the country, and that it was only necessary to look for it.

The "Argus" closes its article by recommending Marshall as a worthy man to the liberality of the State, and suggests that a tract of land be set apart for the benefit of the discoverer, to secure the "first piece of gold" for the state archives.

Mining in Amador County.—The Volcano Ledger contains the following items:

The Mesha Placer.—This mining locality, situated on the south end of our town, is one of the best placers in the country. On the first day last we visited the flat, and were greatly surprised at the amount of gold that had been being done there, and to hear that so much gold was taken out. The claim is worked by fifteen large "hydraulics," and not much of them in operation—there being a pretty good supply of water. The property is owned by Brock, Most of these claims are paying immensely, with a large amount of gold in sight.

Aqueduct City.—Our neighbors of this thriving place are doing a lively business in the mining line, and four of those in operation enabled to obtain at this present time. The new claims are also progressing finely, and it will give a good account of the miners at that locality.

Jackson.—This village is located about six miles south west of Volcano, between the south and middle forks of Jackson Creek, on the best mining region in the county. It is a flourishing little town. The miners are well known to be among the richest in the State, for instance, there is a great scarcity of water.

Woods' & Co.—The company of miners upon a claim at the north end of Mahala Flat, have recently struck a rich deposit in a ledge of soft material, which is supposed to be the old channel of the river. The ledge is from one hundred to one hundred and fifty feet wide. They have not yet reached to the depth of forty feet, and still find good pay.

Mining in Placer County.—The Placer Herald says that the following companies are at work on the "Divide" diggings. At Todd's Valley, Yankee Jim's, Michigan Bluffs, Wisconsin Hill, and other points in that vicinity, considerable claims have been made, and more extensive diggings opened than for any previous year. And if the rains will only meet the ordinary anticipations of the weather-wise, more gold will be extracted from the earth between this and the summer months, by fifty per cent, than all they have since the earliest days of the country.

A Good Date' Work.—The Placer Herald says that two men took out of a claim in Auburn, one day last week, $1,000 each, and on behalf of gold; one lump weighing three ounces.

The Gold Mines of Virginia.

The gold discoveries in Virginia are said to be more extensive than many persons are aware of. The Lynchburg Virginian, in making an estimated value of the most prominent mines, also by whom they are worked, and ownership: Garnett & Moseley, Buckingham county, owned by an English company $500,000. Buckingham mines, Buckingham county, owned by an American company, $200,000. Ayre's mines, Buckingham county, $200,000. Old Dominion mines, Plaisance county, owned by Commodore Stockton, $500,000. Hunter's mines, Goochland county, owned by Virginia Stockton, $75,000. Stone mine, Fluvanna county, now worked, $25,000. Belzora mines, Goochland county, owned by English, $25,000. Colonial mines, Goochland county, owned by English, $15,000. Agnis D'Or mines, Goochland county, owned by Agnis D'Or Mining Company, mines, Goochland county, not worked, $100,000. Cooke mines, Goochland county, now worked, $50,000. Whitehall mines, Louisa county, not worked, $20,000. Vaucluse mines, Louisa county, now worked, $100,000. $270,000. Gardner mines, Orange county, owned by American, $150,000. Hamilton mines, Orange county, owned by Americans, $150,000.

The great difficulty of gold mining in Virginia, as everywhere else, seems to be the want of capital. Immense sums of foreign capital has been expended there in experimenting with various kinds of crushing and amalgamating machinery, but the failure of the same results as attended similar experiments in California. They have all been based upon the original "stampers" similar to those now used successfully in this State. The machinery has generally been put up according to the caprice or judgment of the various proprietors, and not by any fixed rule. The following morning the strange piece of stuff was boiled over in the soap and was found for the boiling it had had. Discussion now commenced, as to what it was, some saying that the yellow substance might perhaps be gold. Little was said on the subject, but every one had been eager to search for the value of all ever found.

"Shortly after Capt. Sutter came to Coloma when he and Marshall assembled the Indians and had bought from them a few ounces of gold, about Coloma, in exchange for a lot of beads and a few cotton handkerchiefs. They, on the day following, set off for the purpose of one third of all the gold upon their demand, and after a short absence returned to Coloma when a mining party from Oregon declined paying "tithes," as they called it.

"During the month of April Marshall and Wimmer went down the river to Mormon Island, and there found gold in the bed of the river. Some weeks later they sent a Mr. Henderson, and Capt. Sutter to the Mormon Island, down there to dig, telling them that that place was better than Coloma. These were the first discoveries of gold there. Capt. Sutter Brannan soon found out that gold digging was paying pretty well, and that he, as head of the Mormon church, he required "tithes" to the tune of one-third of the gold taken out, which Capt. Sutter refused to pay, and Brannan and Marshall at this place.

"Mr. Marshall and Peter L. Wimmer visited the Middle Fork of the American River, at a point just above Spanish Bar, and dug in the bed of the river, and found gold there. With a bullet ladle and tin pan for tools, he and Wimmer got from two to three dollars each per day. Marshall also went further westerly in hills were not quite so high. Returning home he found Capt. Sutter's people, Bennet and at Kelsey, and therupon concluded that gold was scattered all over the country, and that it was only necessary to look for it.

The "Argus" closes its article by recommending Marshall as a worthy man to the liberality of the State, and suggests that a tract of land be set apart for the benefit of the discoverer, to secure the "first piece of gold" for the state archives.

Mining in Amador County.—The Volcano Ledger contains the following items:

The Mesha Placer.—This mining locality, situated on the south end of our town, is one of the best placers in the country. On the first day last we visited the flat, and were greatly surprised at the amount of gold that had been being done there, and to hear that so much gold was taken out. The claim is worked by fifteen large "hydraulics," and not much of them in operation—there being a pretty good supply of water. The property is owned by Brock, Most of these claims are paying immensely, with a large amount of gold in sight.

Aqueduct City.—Our neighbors of this thriving place are doing a lively business in the mining line, and four of those in operation enabled to obtain at this present time. The new claims are also progressing finely, and it will give a good account of the miners at that locality.

Jackson.—This village is located about six miles south west of Volcano, between the south and middle forks of Jackson Creek, on the best mining region in the county. It is a flourishing little town. The miners are well known to be among the richest in the State, for instance, there is a great scarcity of water.

Woods' & Co.—The company of miners upon a claim at the north end of Mahala Flat, have recently struck a rich deposit in a ledge of soft material, which is supposed to be the old channel of the river. The ledge is from one hundred to one hundred and fifty feet wide. They have not yet reached to the depth of forty feet, and still find good pay.

Mining in Placer County.—The Placer Herald says that the following companies are at work on the "Divide" diggings. At Todd's Valley, Yankee Jim's, Michigan Bluffs, Wisconsin Hill, and other points in that vicinity, considerable claims have been made, and more extensive diggings opened than for any previous year. And if the rains will only meet the ordinary anticipations of the weather-wise, more gold will be extracted from the earth between this and the summer months, by fifty per cent, than all they have since the earliest days of the country. Several new companies are now about commencing operations in that locality, and will confirm their anticipations.

The Interior of Africa—Wonderful Discoveries.

The interior of the continent of Africa, has, from time immemorial, been a riddle to the learned and the curious, the attempted solution of which has cost many valuable lives not much treasure. Notwithstanding the success and constant efforts which have been made to penetrate and explore this distant region, until recently, little has been accomplished worthy of note.

Among the most important successes must was made of the existence of an immense interior sea. In the center of the continent. The existence of this sea had long been suspected, but the vast extent of its waters was not known. Explorers have come under our observation, we have received intelligence of other discoveries, which seem to possess equal, if not still greater interest. We allude to the discovery of Mount Gambier (Gn.) Courier." It appears that a Baptist missionary, by the name of Brown, was some time since sent as a missionary to Africa, and on a visit to Horrin, the capital of the Kingdom of Yoruba. Our limited knowledge of the geography of that continent will not have enabled him to locate the position of this "Kingdom," but we gather from the context that it is somewhere in its western central portion. Mr. Brown has forwarded his journal to the Secretary of the Baptist Society from which the "Courier" derives its information. He speaks of the city of Horrin as "about the largest town with the exception of Timbuctoo that he has seen in Africa." He describes the inhabitants as a peculiar people with whom he was much pleased—mostly black, but some nearly white, hair between that of a negro and white man, and of a very good European features—some of their noses would be considered sharp in American—but not Roman. They have a written language or race of men who have yet black skins with European features or large beard. They are sometimes called white black men." Mr. Brown adds:

"I never saw an honorable man nor a modest woman in Africa, till I reached Horrin. Here the men are modest and the women are surprised me. Many of them have no idols. They are governed by serious, noble, worthy people, and profess to believe in God. They have no images of Mahomedism."

Mr. Brown says that there is a region hitherto unknown, but supposed to be the under abode of barbarism, is a fact of no little interest. It would seem from Mr. Brown's letter, that the unfortunate journal was not to be brief to be satisfactory)—that they are willing listeners to the preaching of the gospel. True, he was, on arriving at Horrin, subjected to the annoyance of visits from the curious, but very soon was received with high honors by the King, who gave him a valuable house, presents for his wife, land to build on, and a horse to ride whenever he chose.

It is not a little remarkable that Swedenborg, in one of his strange publications, written more than eighty and ninety years since, speaks of meeting in the world of spirits, individuals from the interior of Africa, whom he describes as being in moral characteristics very much like those above referred to. He speaks, especially, of their readiness to receive truth when communicated to them.

Chimney Rock.—The following description of this wonderful curiosity, is the most striking and faithful we have yet seen. It is from the pen of Mr. Prescott, a correspondent of the New York Sun writes from the Platte River:

It is situated on the south border of the river, and stands forward a half mile from the emigrant road. Its composition seems to be an earthy limestone or marl, or a soft soap stone, and its height and shape are as near as the "Solitary Tower," "Scott's Bluffs" and "Chimney Rock" can be compared to any, and all of them sufficiently soft to be worn by the action of the wind and rains into the fantastic shapes they now present.

Approaching Chimney Rock, we rise from the level of the river, and for a half mile or more, nearly one hundred feet in the distance of less than half a mile, which is the last of the ascent. Chimney Rock stands on the summit of a circular, though somewhat irregular, basin, surrounded by a ridge of rocks, the sides of which have about the usual slope of ordinary earthen ridges. The ascent is one, with considerable difficulty, though with little or no danger, around the part of the ridge which is next to the rock. The calculations that the storms of centuries have been upon its surface.

One hundred and ten feet from ridge on to the top of this pyramid, and to the foot of the tapering column, Chimney Rock proper. Base is nearly square, and about forty feet on each side, and appears to be solid. The column of this base can be reached upon one side only by a narrow neck, which has crumbled away sides; and here rests the foot of the shaft known as Chimney Rock; and this is as high as ever man trod.

From this point, a perpendicular, rough shaft ascends one hundred and forty feet, square, rises upward one hundred and five feet, and holds its full size to the very top, which is apparently level, and not more than a distance, a shot tower, or one of those immense chimneys of manufacturing establishments, and can be seen at a distance of sixty miles along the Platte river.

Van Diemen's Land exists no longer, the Queen having been graciously pleased to accede to a petition from the colony praying that the name of Van Diemand's Land should be changed to that of "Tasmania."

A copper vein has been discovered recently within five miles of Georgetown, which yields at the rate of $236 per ton.

Quartz Mining.

Business of quartz mining most eventful business in California is that of quartz mining interest is to New England—the Hope business of the State. Hence it is in present important condition, we think with peculiar interest upon every effort at its establishment. It is with low that we shall continue from time to time to give accounts of the progress the different Companies are making in development of their mines and in the and working of their machinery. It purpose to visit and report upon every and mine in this locality, where such visits shall be deemed instructive by their proprietors or agents. We shall also endeavor to keep our readers informed of the conditions in all parts of the State, and shall set an especial favor to hear from communications, from those who are engaged in this business. There is a rea- this, and perhaps a good one. The of the Companies now engaged in quartz individuals, managing and attending to ma conceives, having no stock in dishonds or in the market, and wholly interested in the success of an honest business.

As much as we may be desirous to what these companies are realizing their investments—what it costs to raise and what it will pay—but the parties had their profits—we must nevertheless be excused from prying too closely or neighbor's business to learn the facts. The public interest, however, requires a full knowledge of the success or construction of Millwal, on the Tuolumne, Esq., the most gigantic enterprise of the kind ever attempted, has ever yet been put upon the stocks. It is being built at the yard of Messrs. Scott Russell & Co., under the immediate direction of Mr. R., and we believe, is the result of a debted for the conception of this wonderful monument of mechanical skill. This monster steamer is to be 10,000 tons burthen, and will be propelled by a screw of her own weight. The largest of our steamers will be but a pigmy in comparison to her. The following statistics of some portions of this machinery, will more vividly convey some idea of the gigantic proportions of the iron steamer, by which this marine monster will be made to move at the rate of fifteen miles per hour. We copy from the "North British Mail":

"We noticed some time ago a portion of the condensing apparatus of this vessel in the extensive forge of Messrs. Fulton & Neilson, Loanhead. We visited these works the other day, and had an opportunity of seeing in progress some forgings for the machinery, which that establishment is now busily engaged upon. The work contracted for by Messrs. Fulton, Neilson & Co., a list of which we subjoin, will give our readers some idea of the magnitude of the mammoth steamer, as well as the extensive scale on which the works are carried on: shaft 211 feet long, 25-inch diameter; two shafts 180 feet long, 25 inch; 4 shafts 90 feet diameter; two cranks, 7 feet 3 inch centres, and 21-inch thick; propeller shaft, 47 feet long, 25 inch diameter; three fly-wheels, each 40 feet inside diameter, 144 inches thick; all of which, with the exception of the cranks, has just been completed, and is at present lying in the yard. It is the heaviest piece of metal from in the world—it is said to be 60 tons weight. The poly boats, eight in number, will be made of iron, and will be lowered and raised by water power, and the vessel herself will be steered by a small engine placed in the stern. The time expected to be launched is about twelve months."

Discovery of an Emerald Placer.—A correspondent of the New York Sun writes from Bogota, New Grenada, the information that one of the officers of the U. S. Exploring Expedition discovered some thirteen miles south of the line of the Gaudeen purchase, a placer of emerald mines which had been hitherto unknown to the world since the conquest of Cortez, and is now getting up an expedition for that region to prospect for gold and emeralds, which are said to abound in the region indicated.

A lead mine has been discovered in the immediate neighborhood of the coal mine, it is said, of very rich quality, and in large veins of metal. So says the Stockton Republican.

Great Improvements in Locomotive.—Mr. Henry Bates, of New London, Ct., is the author of an invention which is attracting the attention of engineers. It is an engine compression valve for Railroad locomotives, which exhausts the waste steam in the cylinders at the end of the stroke of the piston, and

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changes of level that have evidently taken place in this State within the last few years; but, as more extended observations would greatly assist us in forming conclusions on this subject, I will defer that portion until a future day."

Humor of Cinnabar Miner.—A gentleman who took a jaunt into the mountains near Pacheco's Pass, a few weeks since, informs us that there can be no doubt of the existence of valuable veins of quicksilver ore in that section of our country, which people have only to look for and they will discovered in several places mineral veins, in which the real stuff was there and nothing else. What had has become of the Aurora Quicksilver Mine, which was reported to be in such a hurry to supply so much money and so many men to carry the loads to San Joaquin river? Why don't some one bring in a hundred pounds of quicksilver from that mine to be placed by and doubt?—[Monterey Sentinel.

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